California GARDEN

10c

SEQUOIA SEMPERVIRENS

H 3132 W

MAY
1937

Disbudding Dahlias
By Frederick G. Jackson

Muir Woods
By Mary A. Greer

April Activities
By Ada Perry

Water Gardens
By Bertha M. Thomas

HARRIS SAYS:

We offer this month 61 varieties of Dahlia Bulbs. Ask for our list giving prices and descriptions.

Tuberous Rooted Begonia Bulbs—28 varieties at 15c each. $1.50 per dozen.

Gloxinias—9 varieties at 25c each. $2.50 per dozen.

50 varieties of Bedding plants now ready.

HARRIS SEED CO.

Where You Shop From Your Car
On U. S. Highway No. 101

840 Market St. **Bet. 8th and 9th**

M. 0842

Call and Investigate

The plants that withstood this cold winter's test. The perennials and low growing shrubs. The **One Finest Vine**—now in full bloom.

Indulge with assorted annuals for your early garden blossoms.

Be **slow in pruning the** frosted plants.

K. O. SESSIONS

PACIFIC BEACH

2590 Grand Ave. **Phone Pac. Bch. 607**

Bedding and Ornamental Plants

Cut Flowers For All Occasions

VISITORS ALWAYS WELCOME

ROSE COURT FLORAL CO.

MISSION HILLS

3705 Crane Street San Diego **Hil. 4984**

The San Diego Floral Association

MEETS:

Third Tuesday of Each
Month at Balboa Park

"For Pleasure and Knowledge From a Delightful Avocation"

CALIFORNIA GARDEN

OFFICERS AND DIRECTORS

Mrs. Mary A. Greer, President
Hillcrest 1550-J
R. R. McLean, Vice-President
Mr. Frederick G. Jackson, Treasurer
Bayview 5044
Miss Alice Halliday
Mrs. Robert Morrison
Miss K. O. Sessions
Mrs. DeForrest Ward, Secretary
Hillcrest 3132-J

Member
American Rose Society
American Gladioli Society
American Iris Society
California Fuchsia Society

PUBLISHED MONTHLY BY
The San Diego Floral Association
ADDRESS ALL COMMUNICATIONS TO
P. O. Box 323, San Diego, Cal.

Main Office, San Diego, California

Silas B. Osborn, Editor

MAY, 1937

Vol 28 No. 11

Entered as second-class matter December 8, 1910, at the Post Office at Point Loma, California, under the Act of March 3. 1879.

California Garden is on the list of publications authorized by the San Diego Retail Merchants Association.

Rates on Request

Advertising Copy should be in by the 25th of preceding month.

Subscription to Magazine, $1.00 per year; Membership $1.50 per year; Magazine and Membership combined. $2.00 per year.

Meeting held third Tuesday of each month at Floral Bldg., Balboa Park, 7:30 P. M.

Toft Printing Co., 1129 2nd St., San Diego

Disbudding Dahlias . . . .

By Frederick G. Jackson

Much conflicting advice about how to disbud your dahlia plants can be gathered by the enquiring amateur. The experts will tell you how they do it as if theirs each were the only proper way. If you ask them why they grow dahlias, you will find equal divergence. One may want to raise fine tubers for sale, another seed, another cut flowers, another a general effect. Naturally they proceed differently.

If a dahlia plant just is allowed to grow, it makes a big bush. Of course the size varies with the different varieties. There will be lots of blossoms, not very large, and their size and length of stems will decrease as the season goes on. You will hesitate to cut them with respectable stems because you would cut off so many buds. If you gather blossoms diligently, even ruthlessly, the size of the blossoms will not decrease so much as time goes on. But you may need a step-ladder for some of the bushes.

If the tubers are not dug up in the winter, many sprouts will come up in early spring. Again, if just allowed to grow, you will have a bigger bush with smaller blossoms that run down early. Within a few years, probably most of the special virtue of the strain will be lost. For backgrounds and for cheap cut flowers, where no special virtue is desired, this is no great handicap. The strain can be renewed every few years, or tubers dug and divided alternate winters.

But if you want fine large blossoms for ornament, sale, or show, you have to do beter than that. Plant growth must be controlled. This is done by removing some of the buds soon after they show. To get a fine symmetrical bush and large blossoms, begin when the plant is twelve to eighteen inches tall. The leaves are almost always in pairs, and on the stalk, just above the leaf stem is a bud. Beginning at the bottom, remove several pairs of buds. Then leave six healthy buds, three pairs. Then cut off the main stem a little above the top pair of buds. Then give the plant a bit of fertilizer and watch it grow. Six long branches will develop and shoot up fairly symmetrically. As soon as each terminal flower bud shows a bit of stem, take out the bud or buds beside it and one of two pairs of buds below that. Leave two pairs of buds, and remove all buds below them. Then fertilize again. Soon your plant will flaunt in quick succession six such blossoms that you will lament because the dahlia show does not come in July. Get out your big tall vases, you'll need them for those ten or twelve inch blossoms on three foot stems! The dahlia procession had begun! And if you look over every bush every day and con-

(Continued on Page 2)

April Activities

By ADA PERRY

No mistake, the Floral association is busy in the spring time. Nature causes the flowers to grow but the association does almost everything else, or so it seems.

First there was a very nice April meeting with clever Mrs. Paul Reiss speaking on English gardens which she has visited and showing slides of them by Newton of London who is a personage where slides are concerned. Members enjoyed views of English borders, trees and garden ideas, all beautifully described by Mrs. Reiss who is **not** one of those people who **cannot** address an audience. Her talk was most inspiring and helpful and English blooded members heaved some sighs, occasioned by pleasant memories.

Then Mrs. Herbert S. Evans of 1506 Plumosa way opened her garden again to association members and the San Diego public and a pleasant Sunday, May 2 was spent by the many who took advantage of her gracious invitation. So many beautiful pictures were to be seen at the "smiling hillside." There was the rose lined entrance patio, filled with lovely plants and trimmed with white geraniums and violas. Mrs. Evans knows how to use any color and when she turns her taste to white, the effect is heavenly. White iris Easter Morn was in bloom in a pot and so were some other fine varieties. Seems an admirable way to use iris.

The white wisteria on the per-

(Continued on Page 2)

April Activities . . . . .

(Continued from Page 1)

gola terminating the patio was a marvel of gently stirring fringing and the pink as fine.

Below in the canyon was a golden "pool" of calendulas with an orange "island" of Iceland poppies nearby. White and blue "waterfalls" of watsonia and echium streamed down the slope. Mrs. Evans has many "gardens" in this canyon, depending on the time of the year. Flowering peach time is one, flowering eucalyptus is another and agapanthus still another. These aren't all but this is about all the space because the flower show is coming next.

Now as to the flower show, it seems to have left a lovely and satisfying memory in the breasts of everyone. First it was held in the favorite building, the fine one at the sounthwest corner of the main plaza in Balboa park. Second there was extra room in the building, due to the expansion of the international art exhibits at the time of the Exposition.

Mrs. Mary A. Greer made the floor plan and it turned out to be most roomy and convenient as well as artistic. Mrs. Greer as president of the association which always sponsors the city flower shows, and general chairman of the show, had a few other little tasks to attend to as well as the floor plan. One of two duties descended on the chairmen, too. In fact they worked like mad from Wednesday to Saturday and Sunday, the show days (May 8 and 9). Shall we name them? We shall, with some rousing cheers: Mrs. George Gardener, Mrs. C. M. Hosmer, Mr. and Mrs. W. H. Gibbs, Mrs. Maurice Braun, Mrs. Wendell Brant, Mr. Pieter Smoor, Miss Etta Schweider, Mrs. John Nuttall, Mrs. E. R. Burke, Mrs. W. E. S. Delacour, Mrs. W. B. Dexter Mrs. Lester Wright, Mrs. W. S. Rockwell, Mrs. M. E. Ward and Mrs. Elsie Case and her assistants.

Table arrangements were very beautiful and interesting and the container arrangements were so inspiring that there will be better bouquets this summer as a result. Miniatures were most delightful and delightfully displayed. As for the sweet pea, iris and rose sections, they were filled with the finest kinds of specimens. Among many others, Mrs. Roy Giddings of Point Loma is thanked for her lovely entries from her Rancho El Metata at Alpine.

The professional exhibitors and the Naval Training station, park department and natural history museum all made gratifying exhibits which the public appreciates in a practical way, not to mention the association. It is nice to meet your plant dealer at a flower show. He seems more human and also a real flower enthusiast.

Miss Sessions made one of her finest educational exhibits of praiseworthy plants and this is saying something. She's reached the top so many times already. She had specimens of the seeds of the silver tree and please see Union account for description because your correspondent feels she reached the top in it and is not the repeater of accomplishments Miss Sessions is.

Common flowers had their day in the show this year as witness the prize winning gaillardias and Shirley poppies. There were English may and umbellatum lilies, too. This is near the end of the page and the judges should come in for their recognition. Chairman, and very successful, was Silas Osborne. Worthies were Victor May of the Coronado hotel, J. M. Cowie of the Coronado hotel, William Smith, John Morley who is superintendent of Balboa park, Allen Perry of the park department, John Marshall, Mrs. Arthur Shoven, Harold Taylor and Miss Margaret Loring.

Another very important spring activity is the San Diego garden contest, sponsored by the association. First judging was held May 17, with Mrs. Lester Wright as chairman and John Marshall, Roland S. Hoyt and Allen Perry doing the scoring. The second judging occurs after the fall flower show.

Conservation of Wild Flowers Requested

SARATOGA, Calif.—The California Wildflower Conservation League launched a drive for a three-year moratorium on gathering wild flowers at its twenty-third annual state convention held recently at the Saratoga Inn.

The league, which also issued a protest against commercializing of rare wild bulb plants, declared that in order to preserve the natural beauties of California it is imperative that wild flowers be protected

Accordingly, citizens and visitors to California are requested not to gather wild flowers in California during the three-year moratorium and thus aid in preserving the beauties of the State for the enjoyment of all residents as well as tourists.

Dr. Ray Lyman Wilbur, president of Stanford University, Dr. F. W. Foxworthy, president of the California Botanical Society, Dr. George J. Pierce, botanist of Stanford University, and Dr. Herbert Mason of the botany department of the University of California are among educators who are backing the conservation movement.

Instead of the annual display of wild flowers during the convention, the league featured an exhibit of nature posters made by students from various schools in California.

Mrs. Bertha Rice of Saratoga presided.

Disbudding Dahlias

(Continued from Page 1)

tinue to disbud and disbud and disbud, the procession will maintain its style for a long, long time.

Some growers like to leave the top flower bud as well as the six side branches at the start. It makes one grand blossom, but delays the development of the bush. For larger but fewer blossoms, leave only four branches. And when show-time approaches, sacrifice everything else to force all the strength of the plant into one or two choice buds. Even if you don't get a prize, you won't be ashamed of your exhibit.

Muir Woods . . . . . .

By Mary A. Greer

California boasts of three National Parks—The Yosemite, The Sequoia, and The General Grant—and five smaller reservations known as National Monuments — Muir Woods being one of the finest of these.

The Muir Woods National Monument, a virgin forest of giant redwoods, is situated in Marin county, California, about seven miles across the bay from San Francisco, on the southern base of Mt. Tamalpais. Originally the land, consisting of 295 acres, was part of the old Spanish Grant, Rancho Sausalito, owned by Throckmorton.

It included what is now Mill Valley and Sausalito and was used as grazing land for cattle. Some years ago it was purchased by Senator Kent and its transfer to the Federal government was one of the most public-spirited gifts ever made.

The Tamalpais Land and Water company wished to buy the most beautiful part of the woods for a reservoir. Senator Kent opposed this and feared the land would be condemned by the company.

So he deeded it to the Government with the approval of Forester Gifford Pinchot, chief of the U. S. Forest Service.

By special proclamation of President Roosevelt, a personal friend of Senator Kent, it was accepted as a National Monument on Jan. 9, 1908, and named in honor of California's beloved scientist and nature-lover, John Muir.

This means that California's redwood giants are saved for the pleasure and scientific study of practically the whole of California for within a radius of fifty-two miles of the woods, two-thirds of the entire population of the state is centered —in fact, are saved for the whole world for the great redwood trees—Sequoia Sempervirens—are only found in the Golden State. They were discovered in 1852 and named after Sequorah, a Cherokee Indian. This is one of the few tracts of redwood forests to be found in its natural state in California today.

The chief reason for the permanent protection of the land by the government is that there is no other redwood grove in the whole world more accessible to so many people. So long as the land remained in private ownership, there was always danger that the trees might be destroyed, but as a National Monument they will be safe for all time.

There are many finer stands of redwood in California but there are no other typical groves owned by the United States, nor are there any others which might be acquired by the government except at great expense.

The land is said to have cost Senator Kent $47,000 some years ago, but its stand of redwood timber alone is now valued at more than $150,000 on the market.

The canyons of Tamalpais, which drain into San Francisco Bay, were cut clean years ago and the redwoods obtained from them went into the construction of the old San Francisco. The giants in Muir Woods escaped the axe, however, chiefly, because the outlet is on the ocean side, and also because the various owners of the land have, for sentimental reasons, jealously guarded the timber from harm or destruction. Modern methods of logging would make short work of the timber and would, beside, put a handsome profit into the hands of the owners.

In the old days, one could go from Mill Valley by trail across the low hills to Muir Woods, then known as Redwood Canyon. Now it is also reached by a branch of the Tamalpais Scenic Railway, which is a remarkable engineering feat and which claims the unique distinction of being the most crooked railway in the world. With innumerable curves and turns, it winds along the canyon-side among the magnificent greenery and ends at Muir Tavern, situated on a knoll overlooking the woods. The hand of man has left this wonderful primeval forest untouched save for the paths and rustic bridges by which one is led into the heart of the canyon where the majestic redwoods rise to a height of 200 to 300 feet.

Stewart Edward White says, "You feel in the presence of these trees as you would feel in the presence of a kindly and benignant sage, too occupied with larger things to enter fully into your little affairs, but well disposed in the wisdom of clear spiritual insight.

"It is quite unlike the impression made by any other tree, and is lovable."

The largest redwoods are 18 feet in diameter or 40 to 60 feet in circumference, there being 3000 trees more than 10 feet in diameter. The largest trees approach 300 feet in height, rising with perfectly straight and clean stems. As none of the big trees have been cut, their age is problematic but it is safe to say the veterans have stood from 1,000 to 2,000 years.

Except for a narrow strip of brush along the southwest line the whole canyon is covered with a dense forest growth. The stand is heaviest along the creek. Redwood is the dominating tree, towering in majesty high above everything else and forming fully three-fourths of the whole forest. Douglas fir is next in importance and scattered over the entire tract are all the various hardwoods common to the region, chief among which are the numerous oaks, madrones, alder, maple and Mountain Laurel, all of which form a kind of dwarf underwood to the lofty redwood and fir. The redwood occurs in both large and small groups and in single trees, while the other species are sprinkled throughout. It is an interesting thing to notice the redwoods growing in circles around the grave of the parent tree, for when the original tree dies the young ones spring up in a circle about the place.

The destruction of redwood by lumbering has been so rapid in the last decade that it is now only a question of years when the original growth in our state outside the National Reserves will have wholly disappeared. Its extraordinary scientific and educational value along

(Continued on Page 9)

Water Gardens . . . . .

By Bertha Thomas

We have many reminders of our freeze and the water garden has its share. The Marsh Marigold, our latest addition to winter bloomers for the pool, felt it was at home and is showing a much more vigorous growth, as well as larger and more numerous blooms.

The Water Hawthorne also enjoyed it. They shun heat, grow much better in cool deep water, and showed their appreciation by larger leaves and blossoms. This was especially noticeable in the Pink variety. Its leaves were a deep reddish bronze. And the colder weather brought out the pink in the bloom which had up to now, disappointed us by being white.

The tropical lilies have not forgotten, are still sulking. A few just silently gave up the ghost, and the queer part is that it was the older larger bulbs that could not stand the continued low temperature although no ice formed on the water above. A few waked up from their sleep but put out a few feeble efforts only to finally give up. All have been slower than usual. The Gen. Pershings are always latest to begin growth and at this writing (May 4th) are still dormant but sound and good, just waiting for warmer water.

Marmarata and Blue Triumph showed more resistance than any others.

Hardy lilies were also late, the double white Gonnere and its pink companion Wilfon Gonnere being first to bloom. The latter played a queer trick which we are unable to explain. Its leaves are a clear green. This spring the first leaves all had a large yellow blotch from axle to outer edge, the sides being usual green. Then this yellow center gradually grew smaller on succeeding leaves and now has disappeared. The usual coloring was beautiful but now we want an explanation.

Any lily which is slow in starting can be helped by leaving near surface of the water and gradually lowering as it grows. Friends a few miles north of Los Angeles report their tropical lilies die every winter, but their pool is large and deep. This can be avoided by cleaning the bulb in late fall and storing in moist sand in some dark closet in the house where it is 50 degrees to 60 degrees.

The Hyacinths met a watery grave in all exposed pools. The Azure variety lived through but is just now starting real growth. And along with Water Violet, Pickeral Plant, Arrowhead, etc., all agree with all San Diegans that we prefer our own variety of winter.

Have you tried the new Berbena Venossa? It is perennial, a rich royal purple bloom, on stalks about one foot high, branching and of splendid lasting quality. It also blooms early and late. It is very showy and the color is grand when near white or any light hue. Its vigor is over abundant in that its runners are continually seeking new fields. Last year it started to vie with the early spring bulbs, then continued all summer to keep company with the double fringed Burbank Shasta along a 15 foot walk and it was a most pleasing sight, since there were some interspring plants of light yellow and blue. When the Red Tigridia came out along with blue and white of the Verbena and Daisy it was a grand show for 6 weeks.

DAHLIAS DRAW VISITORS

Ten thousand dahlias, representing hundreds of varieties, bloom at one time in the Liebichau garden on the estate of the Prince of Pless, in Silesia. The collection is one of the most noted in the world, and leading floriculturists go to see it every year from all parts of Europe.

OPENING OF RICE FLOWER

The complete opening of a rice flower has been known to take place in 30 seconds. The bloom lasts from two to three hours.

Alpine Gardens

One of the oldest and richest Alpine gardens of Europe, situated in the Belvedere Park, Vienna, which itself was laid out in 1733 by Prince Eugene of Savoy, has been opened to the public concurrently with the bicentenary celebrations in memory of that famous Austrian military leader.

This botanical garden displays some 25,000 plants. Lovers of flowers can watch here, even in early spring, the unfolding of the blossoms of silvery edelweiss, of the red hearts of primula rosea from the Himalayas, or of the Japanese drawf aster. A wide scope is afforded to students of botany by the abundance of varieties: the genus of saxifraga (stone break) is represented by 300 varieties, sempervivum by 150, while species like globularia, dryas, wulfenia or bluebell are grown in all existing varieties.

Special rarities include a 50-year-old specimen of genista horrida (Spanish broom), Dalmatian chickweek, spikenard, uncommon valerians (V. celtica, supina, elongata), a tiny forget-me-not (Eritrichium manum), "Heaven's Herald," the silky cushions of silence acaulis and linnaea borealis, etc. Among cave plants, saxifraga arachnoidea, paradoxa and aquatica are of special interest.

This collection keeps growing, not only so far as the individual plants are concerned, but also in a wider sense for the head gardener is distributing every year about 3000 parcels of seeds to applicants from many countries. He obtains, in exchange, not money, but, if possible seeds of Alpine plants still lacking.

More Refuges for Birds

Migratory birds soon will have additional refuge areas all along their seasonal flying routes where they will be safe from the hunter's gun, as the Federal Migratory Bird Conservation Commission has approved the acquisition of 133,184 acres of land for 34 refuges in 21 States.

Solve Secret of New Insecticide's Make-up

Rotenone, a powerful insect poison extracted from certain tropical plants, has finally yielded the secrets of its complex chemical structure to chemists of the United States Department of Agriculture. This discovery not only opens the way to the manufacture of synthetic rotenone; it also gives a clue to the structure of related compounds that may prove valuable poisons against insect pests.

The story of rotenone goes back through countless ages to the days when the Chinese prepared a spray for killing insects from derris, a vine growing wild in Asia and the East Indies. It was also an ingredient of a poison dip for arrows used by the head-hunters of Borneo. Neither the Chinese nor the head-hunters, of course, knew what it was in the derris plant that did the work. That was not known until 1902, when a Japanese chemist isolated the most potent insecticidal principle of derris and called it rotenone, "Roh-ten" being the Japanese word for the plant and "one" a sign that the substance belongs to the chemical group known as ketones.

Ever since then chemists in the Far East, in Europe, and in America have been trying to find out just how the atoms of the three constituent elements—oxygen, hydrogen, and carbon—are joined together to make a molecule of rotenone. Out of the thousands of combinations possible to 23 carbon atoms, 22 hydrogen atoms, and 6 oxygen atoms, the right one was finally discovered.

Rotenone was selected several years ago as the most promising from a large number of substances examined by the Department of Agriculture in a search for an insecticide that could be relied on to kill insects and at the same time to be harmless to human beings if swallowed accidentally. A series of laboratory and field tests showed that it is fifteen times more toxic than nicotine to aphids.

Begonia Notes . . .

. . . American Begonia Society Bulletin

Begonias are subject to many insect pests. Most of us know this and would like to know more of their control.

Thrips are one of the worst of the enemies. If you have root thrip, along with several other kinds, you are sure to have a hard time to keep your plants in good condition. A pyrethrum base spray is considered effective and safe. A rotonone spray is also good. Some double acting sprays have both, and kill sucking insects by contact and chewing ones by stomach poisoning. Evergreen has the advantage of leaving no stains or bad odor. Tono-cide has the odor of napthaline or moth balls, and put on the soil of pot plants is a preventive of all kinds of bugs.

Aphids always have begonias on their menu. Tobacco in any form is effective in fighting them. Most of the thrip remedies will control aphids or green fly.

Mealy bugs are a serious menace to some begonias. They are one of the most difficult pests to kill. When a good spray contacts their bodies, they just shed a coat and continue their devastation. To have the least effect, a second spraying is necessary in a day or so, followed by a third within a week. A natural control is the persistent use of water. Spraying every other day for two weeks with water under sufficient pressure to dislodge the bugs from every part of the plant is a good method to use in combating these pests.

White flies seldom attack begonias, but here is a good remedy if they do. Place a dormant rhubarb root in a pot nearby and watch results.

Slugs are a nuisance but not a serious pest except on begonias grown out-of-doors. One cup of brown sugar mixed with one teaspoonful of paris green is a good poison bait. Air-slacked lime sprinkled on the ground early in the evening will kill by contact. Soot, also, is a repellent.

WORLD'S LARGEST PLANT

The box huckleberry is believed to be the world's largest plant. A single plant of this shrub will form a mat over an area of 100 acres and yet reach a height of only six inches.

PALM YIELDS VALUABLE WAX

The carnauba palm which grows in Brazil yields a wax used in shoe polish, phonograph records, furniture wax and filler for certain fabrics.

Kate O. Sessions, Pioneer . .

To California's responsive soil
She gives unstintingly of the great power
Of mind, the warmth of heart, that are her dower.
Early and late, year in, year out, her toil
Is consecrated warfare, meant to foil
Old Nature's purpose to postpone the hour
When all the Golden State shall be a bower
Of loveliness no elements can spoil.
Long after she has winged her gallant flight
To heaven's gardens, this beloved place
Will hold her flower-children's children dear,
While they in turn will seemingly delight
To add to their adopted home a grace
In proud remembrance of a pioneer.

—Emma Johnson.

La Jolla, 1932
California Garden, July 1932.

Question Box . . .

By R. R. McLean

QUESTION: Please tell me this about gladiolus:

How long should gladiolus bulbs be kept out of the ground after digging, before planting, and how do they grow—I mean should they be planted and left until they grow up and bloom or do they have to be dug and replanted before blooming? Reader.

ANSWER: It takes about 9 months from planting for bulbs to be in condition to plant again. For instance, from the time of planting to the flowering stage is about ninety days, then another ninety days for the bulbs to mature before digging and still another ninety days for curing after digging, and before re-planting. Bulblets generally germinate in about the same length of time, although in some varieties germination is quicker than that the second year after digging.

In California some 25 to 50 per cent of the bulblets will bloom the first year, if well grown. However, since they are planted thicker than the larger bulbs, they are generally lifted and replanted for flowering. If they were to be left in the ground close together they would become so crowded as not to grow or flower satisfactorily.

QUESTION: I have a six-year old peach tree in our yard which blossoms and bears fruit but the fruit remains hard and never ripens. At present there are over 50 peaches on it left from last year, all still on the tree and hard as bricks. There must be something wrong with the tree. I wonder if you could help me?

Mrs. J. M.

ANSWER: Is it possible that the tree is a seedling? Occasionally seedlings will develop into trees bearing absolutely worthless fruit. There seems to be no possible explanation other than this. Although you do not so state, probably the leaves shed at the usual time in the fall leaving the hard, worthless fruit hanging. It is a well-known fact that seedlings will sometimes "revert to type," that is, show marked characteristics of their early parents. The fine fruits we now have were probably developed from just such hard, worthless fruits as are hanging on your tree. If the tree in question is fairly well grown and is normal in other respects, you can be quite confident soil and cultural methods are satisfactory, and that the explanation is as indicated. The only course to take, in the writer's opinion, is to have such a tree grafted or budded, using grafts or buds from a tree of known habit, variety or value.

QUESTION: Will you kindly inform me what the small lime is that one gets at the soda fountains? Does it do well here? Please give me the name of the large, sweet lime and tell me where it can be obtained? There is one other fruit I would like to ask about. It is round like a small orange and is very juicy and has a thin skin, but the flavor does not seem to be that of an orange. Mrs. G. B.

ANSWER: The first lime you ask about is known as the Mexican. It is the common more or less wild lime of Mexico. It grows perfectly in California and is particularly valuable in that it fruits all through the year. Although most of our soda fountain limes now come from Mexico, it is to be hoped that sooner or later California will grow enough to supply the market. Some additional tariff protection will have to be given, however, if this is to happen, as it costs practically nothing to raise these limes in Mexico.

The sweet lime you refer to has no other name than that, as far as known to the writer. It also does well in this state. Any nursery handling citrus trees can supply you with whatever variety of lime you wish.

The third fruit you ask about is not described definitely enough to give you a dependable answer, although the writer will hazard a guess that it is a tangelo. The tangelo, as its name indicates, was originated by crossing the tangerine and pomelo, or grapefruit. There are two or three varieties commonly sold, the Sampson, Thornton and Williams, although the first named is the best known and one of the best. The tangelo colors early but should be allowed to stay on the tree until it becomes sweet, which will be in early spring.

QUESTION: Can you tell me if there is a drug plant growing in California known as Ephedra? If so, where can it be found and what is its use? Would it pay to grow it commercially? Mrs. G. S.

ANSWER: At least one native species of Ephedra, E. Californica, is found quite commonly in the desert regions of the southern part of the state. It is a common plant in eastern San Diego county and Imperial. Presumably, however, this is not the species of Ephedra from which the drug Ephedrin is obtained. The latter is a powerful drug used as a substitute of adrenalin in the treatment of colds and asthma. All of our supply comes at present from China and South Africa, chiefly from the former however. Due to the wide demand for it the price is quite high.

The writer has no information that the medicinal species of Ephedra have been grown even experimentally either in California or in any part of the southwest. It is possible, of course, that we can grow them successfully and profitably, but until the government introduces them and tries them out, it is hardly practicable for an individual to do so. There is always the chance that even though the plants may grow and thrive here, their medicinal properties may not develop here as they do in China, possibly due to differences in soil and climate. At the same time a definite attempt should and doubtless will be made to colonize and develop this remarkable plant.

PULLMAN CAFETERIA
1240 5th STREET
San Diego

"Handbook of Northwest Flowering Plants"

Reviewed by Lester Rountree

When the Californian wild flower enthusiast approaches the confines of his state he sometimes meets native plants which just cross the boundary and which are so limited in distribution that they do not appear in botanies of California plants. As we follow the Mexico and Nevada and Oregon borders or step over them we meet these unfamiliar species. But while we have no popular botanies to help us with the plants of Mexico and Nevada, there is now a very good one for those Oregon plants which wander over our northern line.

More and more Californians are going north in summer and since it is practically impossible for a lover of wild flowers to ignore those in the country he or she is passing through, it is wise to carry along a guide to their names. Many of the Oregon wild flowers are of course the same as those of northern California and therefore easily recognizable from our own books, but if we go far out of bounds additional information is needed.

"Handbook of Northwest Flowering Plants" by Helen M. Gilkey (Portland, Ore., Metropolitan Press, $2.50) is one of those helpful volumes which is "usable alike by the beginning student and the layman who is interested in becoming acquainted with the flora of his environment."

It is a little disappointing to the Californian to find that the area covered by Miss Gilkey does not reach quite as far down as the California border, but the book is nevertheless a necessity to those flower-minded folk who travel to the northward. It is especiallp useful for the wild flowers of the Cascades, the coast line and the main river valleys which connect the two; also it covers a great many of the Washington wild flowers, par ticularly those of the coast.

I wish there were more books like Helen Gilkey's. Most botanies are so technical as to frighten the layman, and he consequently gets caught on the rebound by the sen timental, nonbotanical type of flower books, which give him neither the exact bit of information which he is looking for nor the elementary foundation which he needs to help him with his next puzzle. There is a middle road which Miss Gilkey has chosen.

The usual glossary is at the back of the book, but in the front are also three pages filled with small line drawings, each a visual definition of one of the botanical terms used to characterize a part of a plant: palmate veining, hastate leaf, filament, raceme, cyme, corymb, etc. Each species is given a full detailed description in which technical terms are reduced to a minimum and are replaced by plain English words and phrases, and the description is often reinforced by a clear outline drawing of the flower or leaf or both. Also the measurements are given in feet, inches and fractional inches, a great help to the average person who is much more likely to have a ruler or tape measure at hand than a metric scale or one showing twelve lines to the inch.

In my yearly trips into Oregon I have often wished for just such a book as this and henceforth I do not go north without it. Thank you, Miss Gilkey and the Metropolitan Press.

VIOLET COLLECTION FEATURE AT STATION

One of the world's greatest collections of violets is a feature of the agricultural experiment station at the University of Vermont.

There are violets four feet high, creeping violets, violets with grass-like and fan-shaped leaves, and violets of almost every conceivable hue. The collection represents 12 years' work.

BIRDS - SEEDS
PLANTS
BULBS
PET SUPPLIES
Millar Seed Co.
726 Broadway
Phone Main 0219

LIVING PICTURES

Artistic
Easy
Gratifying
Reasonable

ENJOY YOUR GARDEN AT NIGHT

Let Us Tell You How.
No Obligation

Ask for
FREE BOOKLET

Lighting Department
San Diego Consolidated
Gas & Electric Co.
Franklin 4121

Dewey Kelly
"GROWING PLANTS"
Complete Selection of Fruit Trees, Ornamental Shrubs and Bedding Plants for Local Conditions
6633 PACIFIC HIGHWAY
Close To Intersection At Foot of Rose Canyon

Friendship Gardens . . .

By Josie K. Anderson

There are all sorts of gardens, the gardens that have rows of this and rows of that, the formal garden with every tree, shrub and flowers in exactly the right place in its relationship to all the other things growing in the garden; the cactus garden, the rock garden and so on, but what is more delightful than the friendship garden. It may lack form and continuity, in fact it may be only a riot of color, but it is sure to be a thing of joy.

One of the nicest ways of starting a friendship garden as I have learned from experience is to allow your friends to give you cuttings and slips, plants and bulbs from their gardens to place around your new home that has not a green leaf near it, just bare ground and great possibilities.

One friend, a woman of culture and refinement, who always reminds one of the dainty and beautiful, supplied me with violet plants which grew abundantly, in every way typical of the giver who was generous in all ways. From another came a handful of scabiosa seeds which grew into stately flowers, suggestive of a stately lady. Roots of the common fern that grows so easily were supplied and planted in front next to the house, and there they stand straight and strong; a constant reminder of the giver who is a true friend. In one corner were tucked some chrysanthemum plants. Evidently among the roots lay a nasturtium seed which in a short time had covered a large space with gay colors. Both were symbolic of the giver, the chrysanthemum because it is an autumn flower, and the giver is on the autumn side of life, while the nasturtium hints of his generous conversation which is always cheerful and uplifting. In the parking are two oleander bushes that have grown wonderfully. They are not only reminders of those who gave them to me, but also of a friend of long ago who had an oleander in a pot which was on display on the front porch during the summer and carefully nursed in the house in the winter, as the first time I saw an oleander was in a home high up in the Rocky Mountains.

A recent addition to my garden is a heather shrub. There is just the right corner for it. It carries one's thought back to the north of Europe where it is so much a part of the country, it also says that both the giver and recipient are descendants of the heather country. Another much prized addition to my garden is a yellow daisy which grows on a small bush. Originally it was a portion of a Walter Winchell bouquet. As you know he started the movement to send flowers to the shut-ins. That thoughtful act is now carried on and financed by the Florist Telegraph Delivery Association. One such bouquet was sent a friend who is a shut-in. When it had served its purpose the nurse planted a large sprig of the yellow daisy, a portion of the bouquet. It grew rapidly and later on a cutting was given to me which now threatens to cover a large portion of one section of my garden. It ably represents a fine movement, and the largeness and generosity of those who are now carrying on the good work.

The friendship garden may look like an old fashioned pieced quilt; it also has the same attractiveness; or it may be the coat of many colors or a bit of nature's mosaic, however, whatever the reminder it envelopes its owner in beautiful and happy thoughts.

HYBRID OAK BEARS TWO KINDS OF ACORNS

A hybrid oak that bears two different kinds of acorns, each like one of the parent species, was described before the meeting of the American Philosophical Society in a paper by Dr. William Trelease, for many years professor of botany at the University of Illinois.

The tree is a cross between white and bur oak. On certain of its branches, it bears acorns like those of the bur oak, on others, acorns more nearly like those of the white oak. Doctor Trelease is of the opinion that the tree is a "chimaera," belonging to the strange class of hybrid plants that preserve separate identities in their parts rather than a mixture of characters throughout, as in most hybrids.

Santa Barbara National Forest Renamed 'Los Padres'

Change of the name of the Santa Barbara National Forest to "Los Padres" became official when President Roosevelt signed the executive order recently. This will settle an argument among the six counties concerned (Los Angeles, Kern, Ventura, Santa Barbara, San Luis Obispo and Monterey), carried on since President Theodore Roosevelt in 1903 renamed the Santa Ynez and Pine Mountain and Zaca Lake Forest Reserves the Santa Barbara National Forest.

Agreement was finally reached among various chambers of commerce and county boards of supervisors to a name commemorating the work of the Mission Fathers, many of whose churches are found in Los Padres National Forest from Santa Barbara to Monterey. Both San Luis Obispo and Monterey Counties formerly had separate national forest units named after them. The San Luis Forest became part of the Santa Barbara in 1910 and the Monterey was made a ranger district of that forest in 1919. Since then it has been felt that the name "Santa Barbara" did not truly represent the two million acres of land embraced in the national forest.

Los Padres National Forest will be a historic reminder of eight missions within or near its boundaries: San Buenaventura, Santa Barbara, Santa Ynez Purissima, San Luis Obispo, San Miguel, San Antonio de Padua, and the famous San Carlos at Carmel.

Muir Woods

(Continued from Page 3)

with the fact that it is a pleasure ground for all those who live in or visit California, makes Muir Woods an ideal National Monument.

As we stood under the trees majestically rearing their powerful heads toward the heavens, with a wealth of undergrowth, ferns and vines at their feet, a carpet of moss, oxalis and needles, with a hushed sigh of the wind among the boughs, the chatter of birds, and rippling of streams, and over all the exquisite perfume of mingled woodsy odors, a strange feeling of peace and power permeated our spirits and we felt this to be the Great Cathedral built without hands. With this uplift came the true understanding of Charles Keeler's, our California poet tribute to a redwood tree.

RAINFORD FLOWER SHOP

Excellent Cut Flowers for All Occasions

1115 FOURTH AVENUE
San Diego

"Garden" Advertisers are reliable merchants and merit your support . . . patronize them.

TO A REDWOOD TREE

Praise be to thee,
O time wrought monument!
Praise be to thee,
O sky-supporting pillar!
The stars that shine above thee,
The earth that dreams below thee,
The mountains that have borne thee.
All loud proclaim thy glory,
All chant to thee their choral.

Thy shaft is as a column
Of heav'n's wide arch of azure,
Thy boughs are spread above thee
In stately sweeps of verdure;
Thy form is robed in splendor;
With majesty invested,—
O praise be unto thee,
Fair monument of time.

The winds are thy companions,
The sky bends round thy branches,
The earth supports thy vastness,
And all day long the soft winds sigh
Their songs of praise to thee,
And all the night the wild winds weep
Amid thy shelt'ring arms.

O tree of trees,
O monarch of the grove,
The mountains sound thy praises,
The birds declare thy glory,
The brooks proclaim thy wonder,—
And all day long the sweet springs sing,
To thee their liquid lays,
And all the night they sob beneath
Thy broad, protecting arms.

—Charles Keeler.
1900

Question Box

QUESTION: I have four beautiful young eucalyptus trees that have been growing wonderfully until lately, when the leaves of two nearest the alley have begun to turn brown. It looks as if these trees would die. What is the matter? M. S.

ANSWER: Hardly enough detail is given to insure an intelligent reply. The trouble is undoubtedly with the roots, but whether it is lack of water or some injurious element in the soil, one cannot say without an examination of the trees and soil. Check over your irrigation of the trees first, and make sure they have had enough water. If this factor can be disregarded, then investigate the possibility of gas leaks. Eucalyptus are very sensitive to illuminating gas and even a small leak if near the roots would be sufficient to cause trouble. Alkali and various other salts in the soil which if present in any quantity usually injure trees, would hardly affect eucalypts, as they are quite resistant to such deleterious substances.

Concrete Stepping Stones Easily Made

Concrete slabs made to order may be used like flagstone for stepping stones in garden, lawn, or back yard. They may be cast in place, says the Bureau of Agricultural Engineering, or in winter made in the basement and then set where wanted when freezing and thawing weather is over.

These homemade "stones" may be square, oblong, or irregular like natural stones, and may be easily colored—terra cotta, green, or gray. A form for pre-cast slabs consists of a rectangular frame divided by cross-pieces into squares or oblongs. Plastic clay may be used for frames for irregular shaped blocks.

Large slabs will be too heavy to handle. A slab of concrete 6 by 12 inches weighs 25 pounds, if it is 4 inches thick, and is desirable for use in a path. In laying stepping stones, the holes should be excavated 2 to 4 inches deeper than the thickness of the slab. The extra space is filled with sand, rammed in, for drainage. Sand or loam is used to fill spaces between the stones and the sides of the holes.

Those who cast in place, dig a hole of the desired shape, with vertical sides, put in a sand base, lay the concrete, and trowel it.

S. D. Floral Association meeting held third Tuesday of each month at Floral Bldg., Balboa Park, 7:30 p. m.

HAROLD A. TAYLOR